

## The Effect of Covid-19 on the Digitalization of Purchasing Process

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**Abstract:** Digital India is a programme which was started in 2015 to change India into a digitally empowered society. The Digital India initiative has three main components. They are building digital infrastructure, the delivery of digital products, and digital literacy. The concept of Digital India influenced all the sectors towards digitalization. Digitalization refers to the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business. By the mid of 2020, Covid 19 pandemic attacked the entire economies in the world and by the end of March 2020, the Government of India declared complete lockdown and this lockdown continued for long period. In this study the researcher aims to identify the effect of covid 19 pandemics on digitalisation. The study focused on the changes in the purchasing process of customers prior to Covid 19 and after. The researcher evaluated the changes in the buying behaviour of the customers, did the covid 19 pandemic and lockdown influence the customers towards online purchase? Is there any change in the payment method? Do they still stick to cash payment or switched to cashless transactions? Did the ads provided in the social media influence them to purchase products? Do they purchase products through websites, mobile apps or through any other electronic platform or still prefer offline purchase? This study is limited to the state Kerala

**Keywords:** Online purchase, Digital Payment, Social media, Covid-19 pandemics, Digitalization

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### INTRODUCTION

COVID-19 pandemic broke out in 2019, much of the world moved online, accelerating a digital transformation that has been underway for decades. Children started to attend the class online; most of the employees started to work from home; number of firms adopted digital business models and many mobile applications were developed to help “track and trace” the development of the pandemic. These activities demonstrate the tremendous potential of the digital transformation (OECD, 2020).

Going digital is not new to the industry, the pandemic has significantly accelerated the adoption of digital technologies, with far-reaching implications for the future of not only the banking sector, but also the larger financial ecosystem. National Payments Corporation of India (NPCI), has been pivotal to the emergence of the digital payment ecosystem in India, launching innovative and successful initiatives such as UPI, IMPS, Bharat Bill Pay, and ETC (electronic toll collection) through FASTags. Growing internet and mobile penetration, availability of low-cost data plans and the shift from offline to online shopping channels are also giving a fillip to

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the adoption of digital technologies. The virus outbreak is spurring the adoption of contactless digital payments; and there has been a surge in digital payment volumes across online grocery stores, small retail outlets, online pharmacies, vegetable and fruit vendors, recharges, bill payments as well as OTT (telecom and media) and EdTech players. In these difficult times, the digital ecosystem built up over the years has proven crucial in fulfilling business transactions, peer-to-peer transfers as well as government direct benefit transfers. Contactless payments, through QR Code, wallets, UPI or contactless cards, are gaining popularity as they offer convenience, safety and security while allowing the consumers to maintain physical distancing (Doshi, 2020).

### **Literature Review**

(Dvorak, Komarkova, & Stehlik, 2021) aims to understand the role of a crisis, in this case COVID-19, in moderating the market environment and its ability to accelerate or slow ongoing processes. Data was collected from the customers and retailers about digitisation of shopping process before, during and after the crisis.

(Morrone, Raimo, Tarulli, & Vitolla, 2021) examined the level of digitalisation of hotel industry, the underlying motivations, the effects of the digitalisation processes, and the role of Covid-19 through a case study. According to the findings, the motivations are primarily related to the desire to improve the quality of hotel structures, adapt to competitors, and increase financial performance.

(Cvetkoska, Patel, & Dimovska ) study aimed to reveal the willingness of employees in the banking sector in the Republic of North Macedonia to adapt to reorganised working hours while using the safest payment methods in conditions when the world is attempting to deal with the COVID-19 virus-caused crisis. Employees found it difficult to adapt to working from home due to a lack of digitalisation and process automation, but they found it much easier to adapt to the use of alternative distribution channels.

(Fúzi, Géring, & Pál, 2022) purpose is to inquire into the effects of the COVID-19 pandemic on key actors and their expectations in the higher education (HE) sector. The article emphasises the dynamic interconnection between digitalisation and socialisation, as well as changing stakeholder expectations and voices, which should be considered when HEIs choose their future paths post-COVID-19.

(Amoah, Khan, Wood, & Knight, 2021) researchers developed an advance conceptual model in response to the pandemic by connecting the various forces for and against digitalization. The analysis suggests that vested external interests, nostalgia, and employer opportunism may inhibit adoption of emerging technologies, as well as negative effects on employee well-being that undermine productivity, work-life balance, and the future of work. While digitalization may create new opportunities, it also introduces risks that are difficult to mitigate or plan for and finally discussed the broader theoretical and practical implications of the study.

## **Research Gap**

Many studies related to the effect of Covid 19 on digitalisation are there but none of the studies focused on the changes happened in the purchasing process of customers with respect to age and gender during the pre-post Covid-19 pandemic period and level of digitalization in purchase and payment. This study is conducted to fill this research gap.

## **Research Problem**

The COVID-19 crisis has accelerated the digital transformation trends around the globe, as evidenced in the development and expansion of digital infrastructure; the shift to digital delivery of services by firms and within organizations, for instance, in education, healthcare and retail; and increased implementation of digital technologies in manufacturing. Although the pandemic has had a negative impact on many businesses, it has also uncovered new opportunities for entrepreneurship. It has boosted digital entrepreneurship, for instance, reflecting changing consumer behaviour during and in the aftermath of the pandemic (Sorgner, 2021). In this study the researchers aim to identify the effect covid 19 pandemics on digitalisation of purchasing process. The study focused on the changes in the purchasing process of customers prior to Covid 19 and after. The researchers evaluated the changes in the buying behaviour of the customers, did the covid 19 pandemic and lockdown influenced the customers towards online purchase or still they prefer offline purchase? Does the purchasing process vary with respect to the age and gender of the customers?

## **Objectives of the Study**

- To determine the level of digitalisation in purchase and payment.
- To identify the changes happened in the purchasing process of customers during the pre-post Covid-19 pandemic period.

## **HYPOTHESES**

- H<sub>0</sub>: There is no significant association between gender and digitalization in purchase
- H<sub>0</sub>: There is no significant association between age and digitalization in payment

## **Research Methodology**

The study was designed as descriptive based on both primary and secondary data. Secondary data was collected from journals, websites, reports etc. Primary data was collected from the customers using questionnaire. Non probability sampling technique was used to select sample as the official database of the population was not available. A sample of 100 was selected using convenient sampling method from the customers in Kerala. The collected data was analysed using Chi Square test, mean and standard deviation.

## Reliability

Reliability of the scaled variables was measured using Cronbach's Alpha test and the value obtained is 0.717 which is greater than 0.70. It indicates that the data is reliable.

## Level of Digitalization

To identify the level of digitalization of purchasing process, researchers have divided the digitalization into three levels i.e., fully digitalized, partly digitalized and not digitalized. If the customers prefer only online mode, then it is defined as fully digitalized, if the customers prefer both online and offline its partly digitalized and if they prefer only offline mode it's not digitalized.

## Results & Discussions

Among the data collected, 39% of the respondents are male and 61% are female. Majority of the respondent (45%) are of the age group less than 25, 28% of the respondents falls under the age group 25-35, 11% between 35-45, 15% are of the age above 55. The following table shows the respondents opinion about level of digitalisation in their purchase. Researchers tries to find out the mode of purchase of customers. They prefer online purchase, offline purchase or both. If they fully prefer online purchase means purchase is fully digitalised, if they fully prefer offline purchase means purchase is not digitalised and if they prefer both online and offline purchase means the purchase is partly digitalised.

**Table 1**  
**Gender wise opinion on Digitalisation in Purchase**

Gender	Digitalization in Purchase			Total
	Not Digitalized	Partly Digitalized	Fully Digitalized	
Male	13	18	8	39
Female	2	48	11	61
Total	15	66	19	100
<b>Chi Square value: 18.760, df: 2, P value:0.000</b>				

Source: Primary Data

As per the above table majority of the customers (66%) said that they prefer to purchase both online and offline, which indicates that the purchase is partly digitalized. Only 19% said that they fully prefer online purchase and 15% said that purchase is not digitalized which means they prefer to purchase the products offline. In order to test whether the digitalization in purchase varies with gender the following hypothesis was formulated:

H<sub>0</sub>: There is no significant association between gender and digitalization in purchase

H<sub>1</sub>: There is significant association between gender and digitalization in purchase

The hypothesis was tested using Chi Square test. The chi square value obtained at degrees of freedom 2 is 18.760. The p value obtained is less than 0.05, the null hypothesis is rejected and alternate hypothesis is accepted. It implies that there is significant association between gender and digitalization in purchase.

**Table 2**  
**Gender wise opinion on Digitalization in Payment**

Gender	Digitalization in Payment			Total
	Not Digitalized	Partly Digitalized	Fully Digitalized	
Male	0	20	19	39
Female	2	34	25	61
Total	2	54	44	100
Chi Square value: 2.385, df: 2, p value:0.303				

Source: Primary Data

As per the above table 54% of the customers said that the payment is partly digitalized and 44% said that the payment is fully digitalized only 2% responded that payment is not digitalized. In order to measure the digitalization in payment varies with gender Chi square test was used. The chi square value obtained at degrees of freedom 2 is 2.385. Since the p value (0.303) obtained is greater than 0.05, the result is not significant. It implies that there is no significant association between gender and digitalization in payment.

**Table 3**  
**Age wise opinion on Digitalization in Purchase**

Age Group	Digitalization in Purchase			Total
	Not Digitalized	Partly Digitalized	Fully Digitalized	
Less than 25	0	36	9	45
25-35	0	25	3	28
35-45	0	4	7	11
45-55	1	0	0	1
55 & above	14	1	0	15
Total	15	66	19	100

Chi Square value: 88.997, df: 8, p value: 0.000

Source: Primary Data

As per the above table, majority of the respondents with an age less than 35 opined that they prefer both online and offline mode for purchase which means that purchase is partly digitalized but majority of the respondents of the age above 55 prefer offline purchase.

The association between age and digitalization in purchase was tested using Chi square test. The Chi square value obtained at degrees of freedom 8 is 88.997. The p value obtained is less than 0.05, which means that the result is significant. It implies that there is significant association between age of the customers and digitalization in Purchase.

**Table 4**  
**Age wise opinion on Digitalization in Payment**

Age Group	Digitalization in Payment			Total
	Not Digitalized	Partly Digitalized	Fully Digitalized	
Less than 25	2	24	19	45
25-35	0	13	15	28
35-45	0	2	9	11
45-55	0	0	1	1
55 & above	0	15	0	15
Total	2	54	44	100
Chi Square value: 29.946, df: 8, p value: 0.000				

Source: Primary Data

As per the above table 37% of the respondents below 35 years opined that payment is partly digitalized and 34% opined that payment is fully digitalized. About 55% of the respondents opined that payment is partly digitalized where as 44% opined that payment is fully digitalized. Only 2% opined that payment is not digitalized.

In order to test whether the digitalization in payment varies with respect to the age of the respondents, the following hypothesis was formulated and tested using Chi square test.

H<sub>0</sub>: There is no significant association between age and digitalization in payment

H<sub>1</sub>: There is significant association between age and digitalization in payment

The Chi square value obtained at degrees of freedom 8 is 29.946. Since the p value is less than 0.05, alternate hypothesis is accepted. It indicates that there is significant association between age and digitalization in payment.

### **Effect of Covid 19 on Digitalization in Purchase Process**

To identify the effect of covid 19 on digitalization of purchase process of customer, the following constructs was identified and respondents were are asked to mark their response on each construct for a period prior to covid 19 and post Covid 19. This will help to identify the effect of Covid 19 on each construct.

**Table 5**  
**Effect of Covid 19 on digitalization in purchase Process**

Variables	N	Prior to Covid 19		After Covid-19	
		Mean	S. D	Mean	S. D
I like to purchase products from shops directly	100	3.87	0.939	3.69	0.861
I prefer to purchase both online and offline products	100	3.68	1.062	3.85	1.077
Online shopping is more convenient to me	100	3.25	1.132	3.53	1.020
I prefer cash payment	100	3.44	1.085	3.14	0.954
I prefer cashless payment	100	3.37	1.041	3.80	0.867
I prefer to make payment through UPI/ PoS	100	3.43	1.057	4.01	0.882
Social media ads influenced me to purchase products.	100	3.25	1.038	3.55	0.989
Offers and discounts provided by the shops influenced me to purchase products	100	3.72	0.911	3.84	0.873

Source: Primary Data

The mean and standard deviation of each construct was calculated for the response of both the period i.e., prior to Covid 19 and after. As per the table for the response about purchasing decision of customers prior to Covid 19; highest mean is for the construct ‘I like to purchase products from shops directly’ (3.87) with a standard deviation of 0.939 followed by ‘Offers and discounts provided by the shops influenced me to purchase products’ with a mean 3.72 and standard deviation 0.911. This indicates that these two constructs had high influence on the purchase decision of customer during the period prior to Covid 19.

While evaluating the response of customers about purchase decision after Covid 19, it was found that highest mean is for ‘I prefer to make payment through UPI/ PoS’ (4.01) with a standard deviation of 0.882 followed by ‘I prefer to purchase both online and offline products’ with a mean 3.85 and standard deviation 1.077. This indicates that these two constructs had high influence on the purchase decision of customer after Covid 19 pandemic.

## CONCLUSION

The study was conducted to identify the effect of Covid 19 pandemic on digitalization of purchasing process of customers. It was found that there is change in the purchase decision of customers. During the period prior to covid 19 customers preferred to purchase the products from the shop directly but now they prefer both online and offline shopping. Earlier the customers preferred to make cash payment after purchase but now they prefer to make payment through UPI/ PoS. There was no change in the construct 'Offers and discounts provided by the shops influenced me to purchase products' during both periods.

The level of digitalization in purchase is partly digitalized which means that customers prefer to purchase the products directly from shops and online purchase also. Digitalization in purchase varies with respect to age and gender of the customers. The level of digitalization in payment is partly fully digitalized and other half opined that it is partly digitalized. Digitalization in payment varies with respect to age of the customers but gender of the customers does not have an influence on digitalization in payment.

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